

CLAIMS

1. An imaging apparatus comprising:

an exterior case to which a lens device is attached;

a flashlight device supported in the vicinity of an objective lens of said lens device, capable of moving between a pop-up position and a storage position through a turning arm;

spring means that makes said flashlight device pop up to be urged to said pop-up position; and

holding means for holding said flashlight device in said storage position;

wherein the pop-up angle of said flashlight device is set at 20 degrees or less and a light emitting portion faces the front of a subject in the pop-up position.
2. An imaging apparatus according to claim 1,

wherein said flashlight device is disposed in the upper direction of said holding means and adjacently in the vicinity of said objective lens.
3. An imaging apparatus according to claim 1,

wherein said flashlight device includes a reflecting mirror in which a light source is loaded;

said reflecting mirror has a pair of first reflecting surfaces which are made of part of a cylindrical curved surface

and which are opposed to each other and a second reflecting surface which is continuous with said pair of first reflecting surfaces and in which a light source is stored; and a continuous portion, where said pair of first reflecting surfaces and said second reflecting surface continue, is set at a position on the opening portion side of the pair of first reflecting surfaces, which is displaced from the central portion of said stored light source.

4. An imaging apparatus according to claim 3,
wherein said second reflecting surface includes: a cylinder-like cylindrical surface portion obtained by making the central portion of said light source be the center of a curvature radius; a pair of parallel plane portions which are provided in part of said cylindrical surface portion and which are expanded in approximately parallel with a central surface that makes said pair of first reflecting surfaces symmetrical; and a pair of inclined plane portions that are provided in part of said cylindrical surface portion and are extended in the tangent line direction from a first intersecting portion, at which an extended line of the line connecting said continuous portion to said central portion intersects said cylindrical surface portion, to a second intersecting portion at which the pair of inclined plane portions intersect said parallel plane

portions.

5. An imaging apparatus according to claim 3,
wherein the length between a pair of continuous portions
that connect said pair of first reflecting surfaces to said
second reflecting surface is made smaller than the diameter of
the cylindrical surface portion constituting part of said second
reflecting surface.

6. An imaging apparatus according to claim 3,
wherein said second reflecting surface is formed into an
elliptical shape so that the position of said light source
adjustably moves along said central plane.

7. An imaging apparatus according to claim 3,
wherein said second reflecting surface includes: a curved
surface portion obtained by making the central portion of said
light source be the center of a curvature radius; a pair of
parallel plane portions developed in approximately parallel with
the central surface from a vertical intersecting portion at
which said curvature radius intersects a vertical surface that
passes said central portion and vertically intersects said
central plane; and a pair of inclined plane portions which are
continuous on one side of said curved surface portion and which

are extended and developed in the tangent line direction from the first intersecting portion, at which an extended line of the line connecting said continuous portion to said central portion intersects the curved surface portion, to the second intersecting portion at which the pair of inclined plane portions intersect said parallel plane portions.

8. An imaging apparatus according to claim 3,
wherein said second reflecting surface includes: an elliptical cylindrical surface portion obtained by making the central portion of said light source be the center of the curvature radius; a pair of parallel plane portions which are provided in part of said cylindrical surface portion and which are developed in approximately parallel with a central surface that makes said pair of first reflecting surfaces symmetrical; and a pair of inclined plane portions that are provided in part of said cylindrical surface portion and are extended and developed in the tangent line direction from a first intersecting portion, at which an extended line of the line connecting said continuous portion to said central portion intersects said cylindrical surface portion, to a second intersecting portion at which the pair of inclined plane portions intersect the parallel plane portions.

9. An imaging apparatus according to claim 3,
wherein said second reflecting surface includes: a first
curved surface portion obtained by making the central portion of
said light source be the center of the curvature radius; a
second curved surface portion that passes said continuous
portion and is obtained by making the center of the curvature
radius urged from the central portion of said light source to
the side approaching the continuous portion or to the side
departing therefrom; and a pair of inclined plane portions which
continue on both sides of said first curved surface portion and
which are extended and developed in the tangent direction from
the first intersecting portion, at which an extended line of the
line connecting said continuous portion to said central portion
intersects said first curved surface portion, to said second
curved surface portion that intersects a vertical surface
passing said central portion and vertically intersecting said
central plane.

10. An imaging apparatus according to claim 9,
wherein the central portion of said second curved surface
portion is an intersection point that is vertically descended
from the first intersecting portion at which the extended line
of the line connecting said continuous portion to said central
portion intersects the first curved surface portion, or an

intersection point in the vicinity thereof.

11. An imaging apparatus according to claim 1,
wherein a blindfolding board is provided on the lower
surface of said flashlight device for covering said storage
position when the flashlight device is moved to said pop-up
position.

12. An imaging apparatus according to claim 11,
wherein said blindfolding board has a pair of shaft
portions projecting in directions opposite to each other on the
same axis line and said pair of shaft portions are supported by
both ends at the lower part of said flashlight device, and said
blindfolding board is capable of turning in the range of
predetermined angles using its own weight.

13. An imaging apparatus according to claim 11,
wherein a plunger mechanism is disposed in the lower
direction of said blindfolding board for popping up said
flashlight device.